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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,031	09/27/2001	Francois Pachet	450117-03506	2592

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EXAMINER
LU, KUEN S

ART UNIT	PAPER NUMBER
2177	

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>27 September 2001</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.

    a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> .	6) ☐ Other: .

Detailed Action

Specification

The following guidelines illustrate the preferred layout for the specification of a utility

application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following
sections in order. Each of the lettered items should appear in upper case, without underlining or bold
type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should
follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37
CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37
CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact
discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were
accepted by the Office until March 1, 2001.)
(e) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(f) BRIEF SUMMARY OF THE INVENTION.
(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(h) DETAILED DESCRIPTION OF THE INVENTION.
(i) CLAIM OR CLAIMS (commencing on a separate sheet).
(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required
on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a)
and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

1. The specification of the disclosure is objected to because it fails to comply with the

"Arrangement of the Specification". Correction is required.

2. The spacing of the lines of the specification is such as to make reading and entry of

amendments difficult. New application papers with lines double spaced on good quality

paper are required.

3. The title of the invention is not descriptive. A new title is required that is clearly

indicative of the invention to which the claims are directed.

4. The incorporation of essential material in the specification by reference to a foreign

application or patent, or to a publication is improper. Applicant is required to amend the

disclosure to include the material incorporated by reference. The amendment must be

accompanied by an affidavit or declaration executed by the applicant, or a practitioner

representing the applicant, stating that the amendatory material consists of the same

material incorporated by reference in the referencing application. See *In re Hawkins*,

486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ

163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

Abstract

Applicant is reminded of the proper language and format for an abstract of the

disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because it recites the claims and

contains phrases which can be implied, such as "invention" and "comprising".

Correction is required. See MPEP § 608.01(b).

Claims

6. The claims are objected to because the lines are crowded too closely together,

making reading and entry of amendments difficult. Substitute claims with lines one and

one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claims 1-17 are rejected under 35 U.S.C. 102(b) as anticipated by Woo (U.S.

Patent 6,678,680).

As per the independent Claims 1, 16 and 17, Woo teaches the following:

Woo teaches a method, system and program of "generating sequencing information

representing a sequence of items selected in a database, each of the items comprising

a set of descriptors" at the Abstract, by generating a difference sequence for each song

selected from the database and a difference argument for the note sequence of the

referencing song, and calculating the distances between the difference argument and

each of the difference sequences.

"specifying a length of said sequence and at least one of said descriptors" at Fig. 1,

elements 108-110 and 114-116, col. 3, line 60 – col. 4, line 15 by entering the note to be

searched and combining the note, search type, search option and devices as descriptors;

"applying similarity relation techniques between said items" at col. 10, lines 12-14 by

calculating an absolute difference between the input notes and the notes for the current

song selected from song database; and

"generating a fixed-length sequence having a morphological continuity" at col. 10, lines 5-

21, col. 9, lines 5-8 and col. 9, line 64 – col. 10, line 2, by comparing the calculated

difference values and displaying the exact or near matching songs in the search result box.

As per Claim 2, Woo teaches each of the "items is represented by a series of

constraint variables having a domain in the database" at col. 11, lines 37-45 by

analyzing the commonly occurring patterns of the songs in the song database.

As per Claim 3, Woo teaches "similarity-relation applying step comprises modeling

each of said descriptors in a desired sequence as a constrained variable" at col. 6, lines 10-

15 by converting the input notes into a displayable, Format-2 string.

As per Claim 4, Woo teaches "similarity-relation applying step comprises applying a

global similarity relation technique by combining individual similarity measures on all of said

descriptors" at col. 6, lines 20-33 by comparing the adjacent nodes or change of octave

values.

As per Claim 5, Woo teaches "similarity-relation applying step comprises providing

mathematical similarity functions" at col. 6, lines 20-33, by using the difference function as

the mathematical similarity functions.

As per Claim 6, Woo teaches "similarity-relation applying step comprises providing

similarity relations defined by given thresholds" at col. 9, lines 54-62 by specifying an

allowable variance as a threshold for comparing with the calculated difference score.

As per Claim 7, Woo teaches "sequence-generating step comprises transforming said at least one of said values into unary constraints in terms of constraint satisfaction programming techniques" at col. 6, line 9, col. 7, line 23, col. 8, line 53, col. 9, line 16, col. 10, line 4 and col. 11, line 10 by executing the routines to transform notes into calculated differences to satisfy the searching criteria for obtaining the songs from the song database.

As per Claim 8, Woo teaches "sequence-generating step further comprises subjecting said unary constraints to a processing of variables domain reduction" at col. 10, lines 25-30 by performing a filter function options on the input note sequence and the songs from the song database in order to improve the search results.

As per Claim 9, Woo teaches "descriptors are expressed in terms of descriptor/value pairs respectively, and each of said values for said descriptor is selected from descriptor/value lists" at col. 6, lines 10-15 by converting and displaying the input note to a displayable string of characters.

As per Claim 10, Woo teaches "each of said descriptors is associated to a descriptor type" at col. 6, lines 10-15 by converting and displaying the input note to a displayable string of characters whose type is character.

As per Claim 11, Woo teaches "descriptor type comprises at least one type selected from the group consisting of Integer-Type, Taxonomy-Type and Discrete-Type" at col. 6, lines 10-15 by converting and displaying the input note to a displayable string of characters which are taxonomy-type and discrete-type.

As per Claim 12, Woo further teaches "step of specifying at least one of said values comprises specifying a first title and a last title of said items in said sequence" at Fig. 1,

elements 108 and 116, col. 3, lines 55-59 and col. 4, lines 7-15, by selecting title as the

search type and entering the notes for the first and last tiles for searches to be

performed.

As for Claim 13, Woo teaches "step of specifying at least one of said values

comprises specifying a morphological style of said items in said sequence" at Fig. 1,

element 108, col. 3, line 60 – col. 4, line 15, col. 6, line 9, col. 7, line 23, col. 8, line 53,

col. 9, line 16, col. 10, line 4 and col. 11, line 10, by specifying music as the search type

and entering the notes for the songs to be search where notes are of morphological

style, and generating a difference sequence for each song selected from the database

and a difference argument for the note sequence of the referencing song, and

calculating the distances between the difference argument and each of the difference

sequences.

As per Claim 14, the combined Woo teaches "database comprises musical pieces" at

the Abstract, line 1 by searching a desired song in a song database.

As per Claim 15, Woo teaches "values comprise titles, and said titles form a music

program" at Fig. 1, elements 108 and 116, col. 3, lines 55-59 and col. 4, lines 7-15, by

selecting title as the search type and entering the notes for the songs to be searched.

Conclusions

8.   The prior art made of record

                         A. U.S. Patent   6,678,680

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.   B. U.S. Patent   5,850,229

C. U.S. Patent   5,925,843

D. U.S. Patent   6,665,641

E. U.S. Patent   6,629,097

F. U.S. Patent   6,223,210

U. Video Rewrite: Visual Speech Synthesis from Video

Proceedings, ASP 1997, Rhodes, Greece

C. Bregler, M. Covell, M. Slaney

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S Lu whose telephone number is 703-305-4894. The examiner can normally be reached on 8 AM to 5 PM, Monday through Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 703-305-9790. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

KL

Patent Examiner

January 22, 2004

GRETA ROBINSON

PRIMARY EXAMINER